

Fig. S1, related to Fig. 2 and STAR Methods

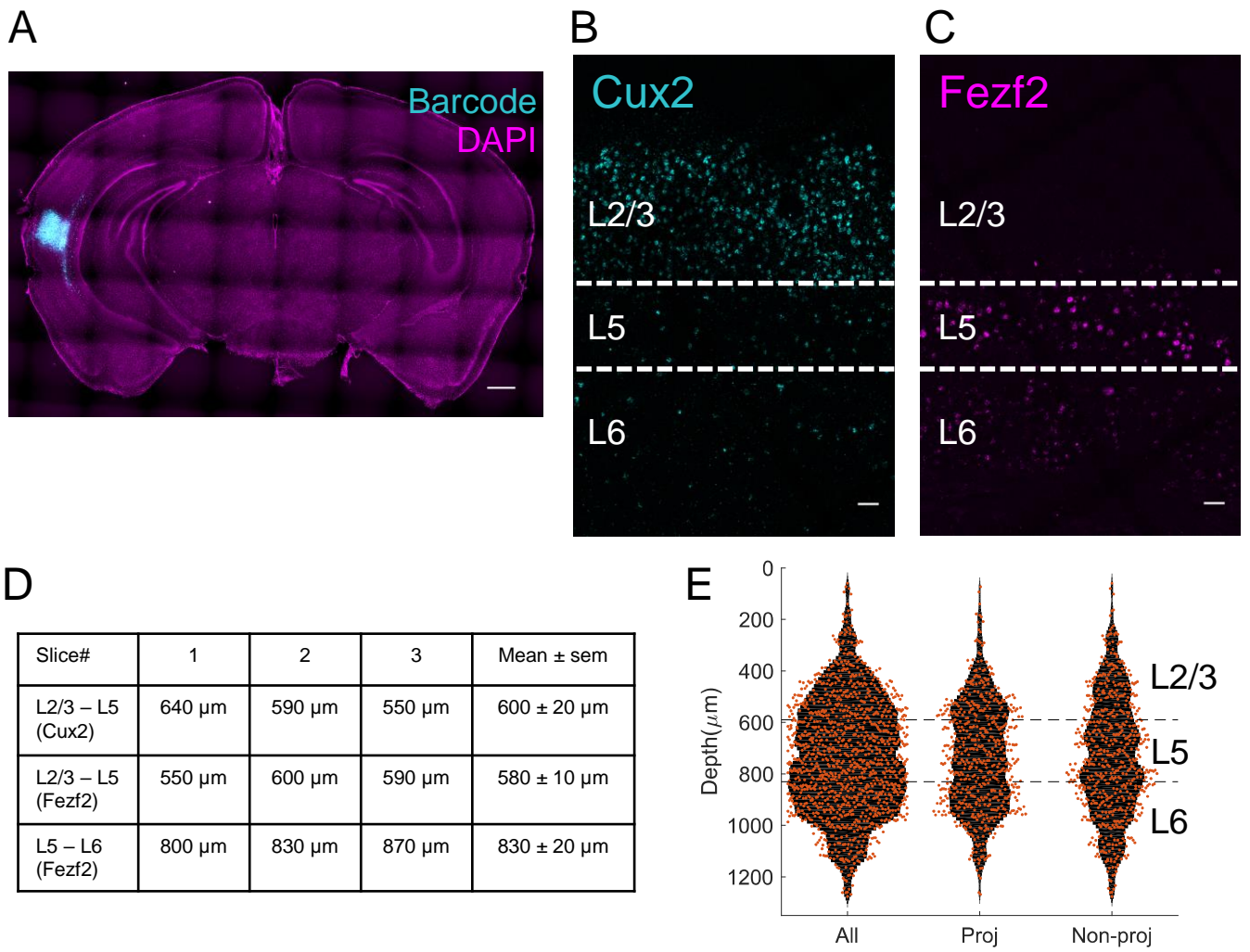


Fig. S3, related to STAR Methods and Fig. 4

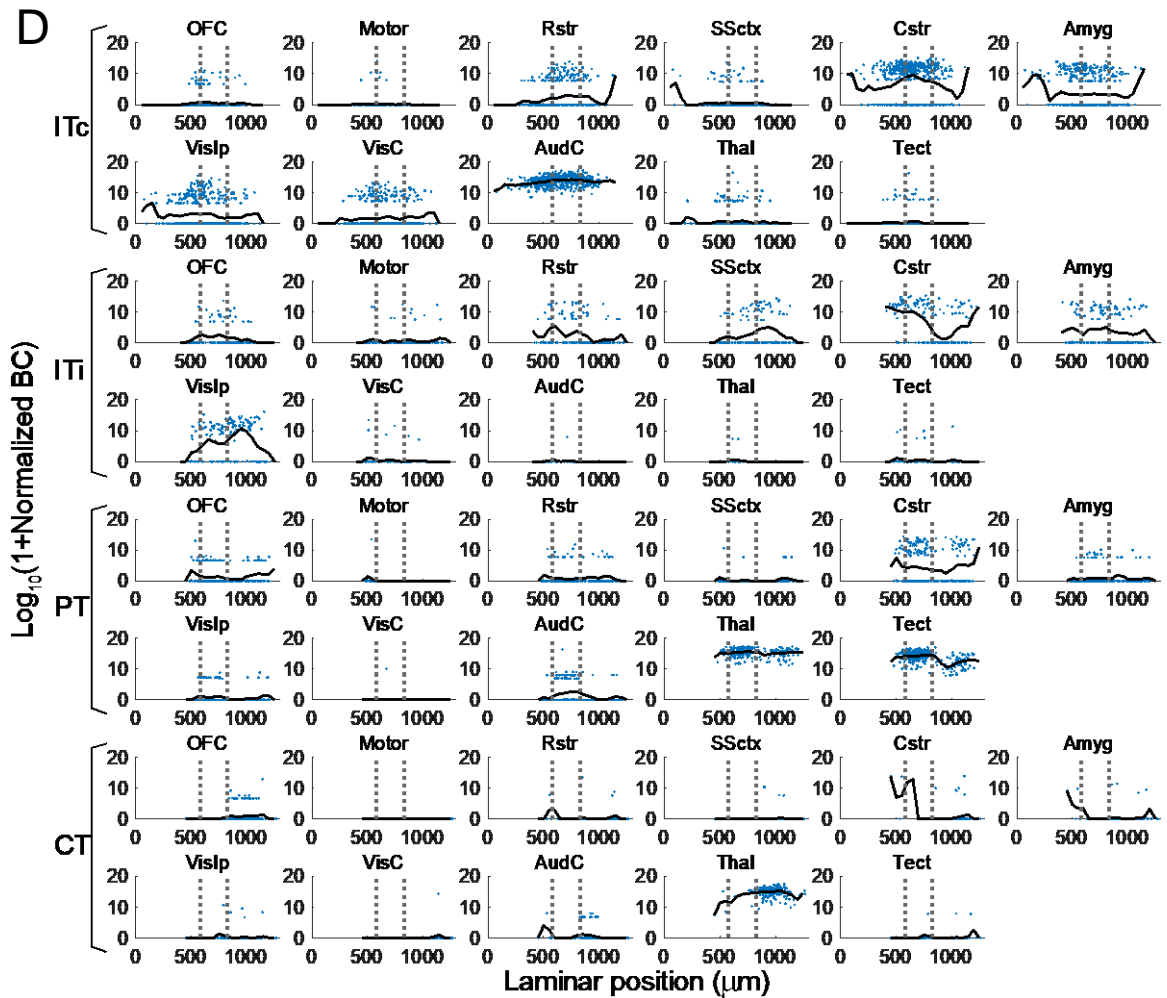
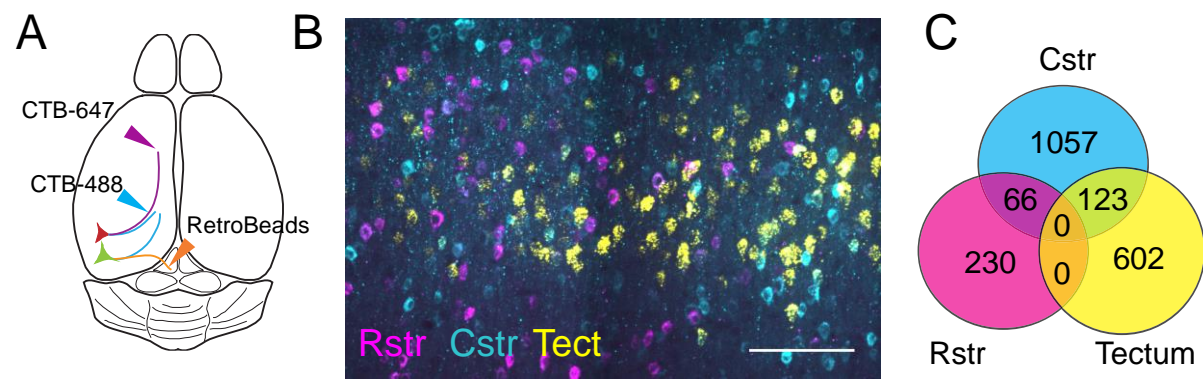


Fig. S4, related to Fig. 5

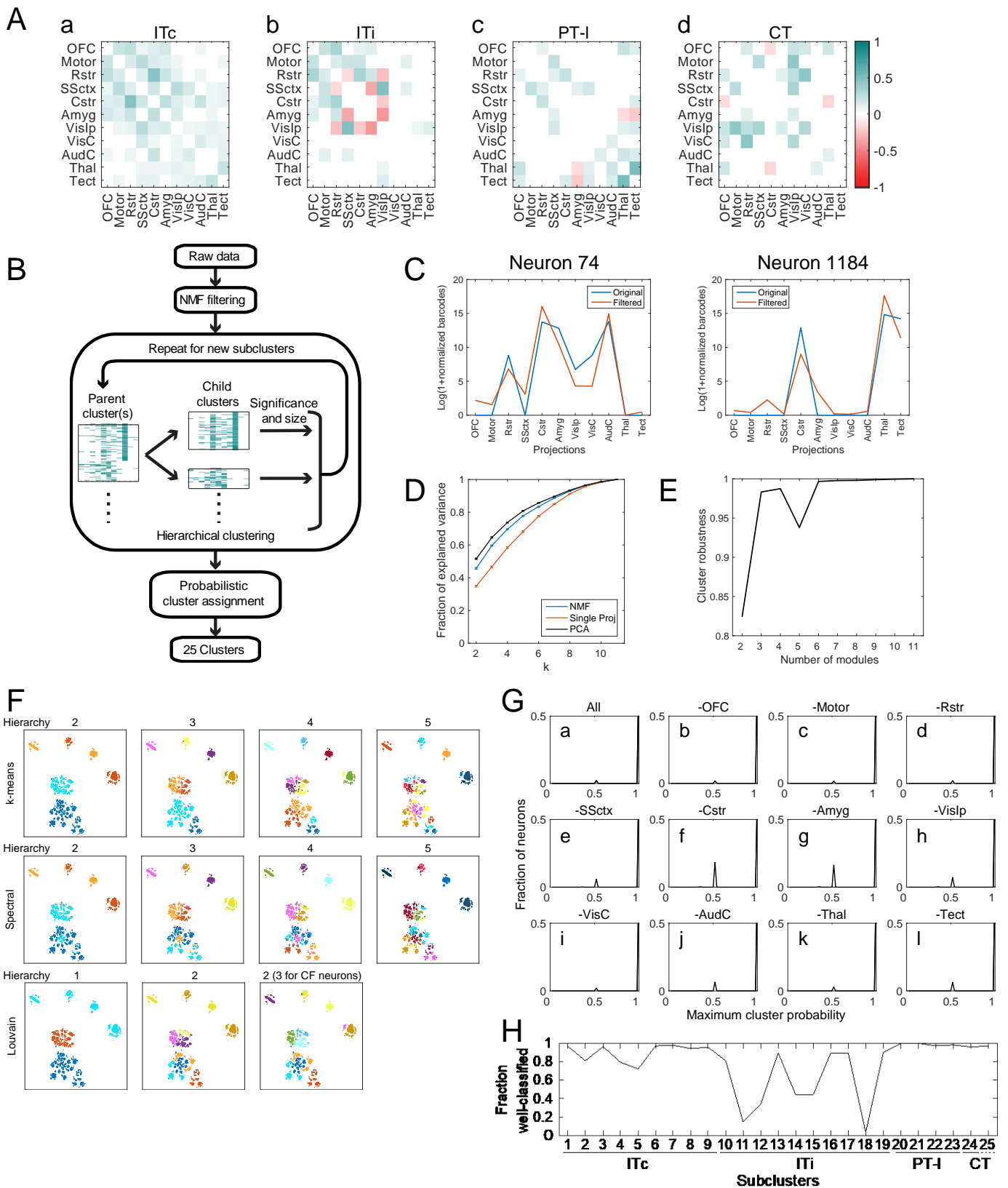


Fig. S5, related to Fig. 5 and STAR Methods

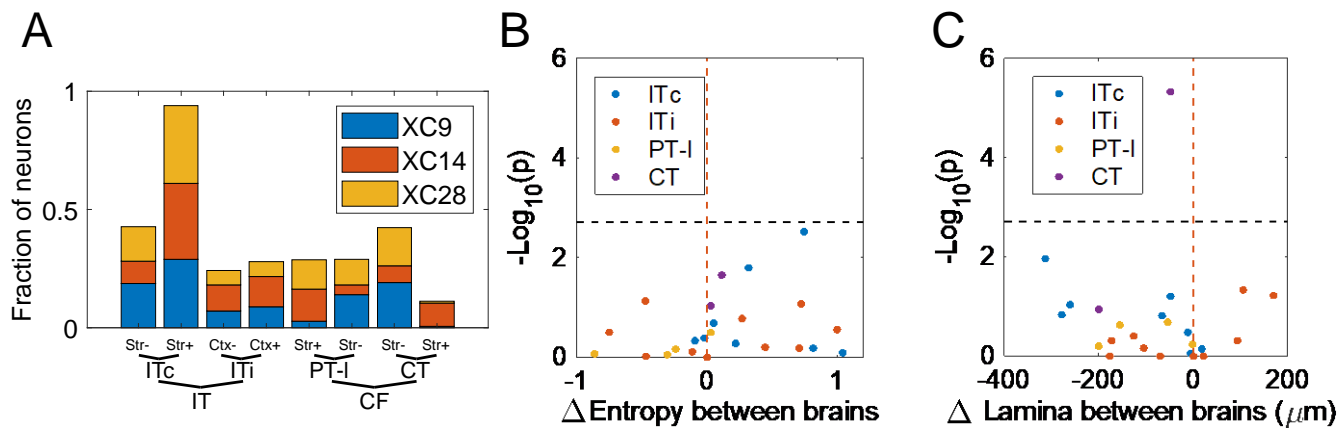


Fig. S6, related to Fig. 5

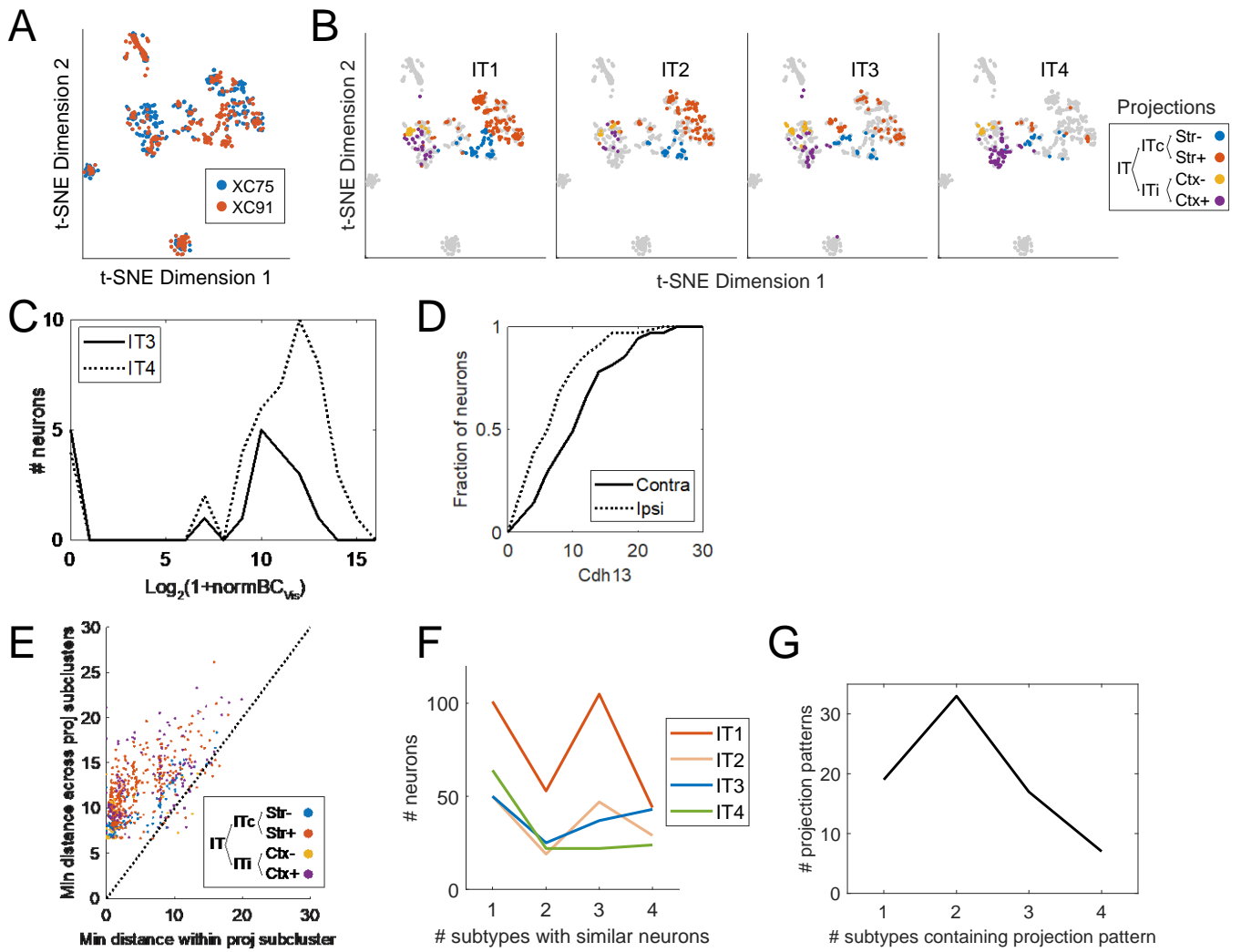


Fig. S7, related to Fig. 6 and Fig. 7

OB	c1	c2	c3	min qual (>0.75)	CTB+	BARseq+
0	151	186	4	0.95	0	1
0	1433	995	87	0.96	0	1
0	155	70	11	0.91	0	1
0	177	197	17	0.89	0	1
0	17	102	1	0.92	1	1
0	132	135	10	0.88	0	1
0	96	157	12	0.88	0	1
0	102	58	6	0.90	0	1
0	665	58	14	0.82	0	1
0	14	100	5	0.87	1	1
0	0	0	0	0.91	0	0
0	0	0	0	0.97	0	0
0	126	112	7	0.84	1	1
3	281	359	28	0.88	0	1
0	419	313	34	0.94	1	1
0	106	139	3	0.79	0	1
0	72	89	15	0.88	1	1
0	342	159	4	0.88	0	1
2	1571	1061	100	0.92	0	1
0	0	0	0	0.79	0	0
0	0	0	0	0.86	0	0
0	0	0	0	0.83	0	0
0	232	51	5	0.89	0	1
0	0	0	0	0.92	0	0
0	372	344	19	0.87	1	1
0	0	0	0	0.88	0	0
0	44	20	1	0.83	0	1
0	234	209	20	0.95	1	1
0	109	10	6	0.90	0	1
3	281	359	28	0.91	0	1
0	61	66	4	0.95	0	1
0	0	0	0	0.82	0	0
0	0	0	0	0.95	0	0
0	335	79	15	0.92	0	1
0	114	186	9	0.94	0	1
0	0	0	0	0.90	1	0
0	271	211	21	0.91	0	1
0	3159	415	28	0.78	1	1
0	0	0	0	0.79	0	0
0	305	148	18	0.94	0	1
0	0	0	0	0.94	0	0
0	637	293	31	0.85	1	1
0	471	413	15	0.93	0	1
0	1062	528	94	0.92	1	1
0	335	79	15	0.92	0	1
0	59	73	3	0.86	0	1
0	565	359	27	0.93	0	1
0	460	208	82	0.94	0	1
0	0	0	0	0.83	0	0
0	0	0	0	0.84	0	0
0	0	0	0	0.96	0	0
0	208	69	5	0.91	1	1
0	0	0	0	0.91	0	0
0	1148	481	30	0.97	0	1
0	200	102	14	0.80	1	1
0	238	154	25	0.94	0	1
3	609	575	62	0.88	0	1
0	18	5	0	0.79	0	1
0	0	0	0	0.95	0	0
0	1748	163	31	0.92	0	1
0	0	0	0	0.96	0	0

Table S1, related to Fig. 2

Cell Index	OB	Ipsi-Ctx	Contra-Ctx	Str	Thal	Tect	Total	Slc17a7	Gad2
1012	0	14	87	0	0	0	101	1	0
1024	0	119	0	0	0	0	119	1	0
1029	0	0	0	0	0	0	0	1	0
1074	0	21	18	25	0	0	64	1	0
1075	0	0	0	0	0	0	0	0	0
1128	0	30	44	10	0	0	84	1	0
1135	0	28	3	0	0	0	31	1	0
1155	0	0	0	0	0	0	0	0	1
1167	0	0	0	0	0	0	0	1	0
1179	0	0	170	1	0	0	171	1	0
1192	0	0	0	0	0	0	0	0	0
1199	0	0	0	0	0	0	0	0	0
1226	0	0	0	0	0	0	0	0	0
1245	0	0	0	0	0	0	0	1	0
1267	0	0	0	0	0	0	0	0	0
1274	0	0	16	0	0	0	16	1	0
2007	0	4	0	0	0	0	4	1	0
2051	0	0	0	0	0	0	0	0	0
2054	0	0	0	0	0	1	1	1	0
3009	0	0	0	0	0	0	0	0	0
3012	0	41	0	0	0	0	41	1	0
3076	0	68	48	0	0	0	116	1	0
3082	0	9	182	0	0	0	191	1	0
3090	0	0	1	0	0	0	1	1	0
3130	0	0	74	0	0	0	74	1	0
4003	0	34	0	0	0	0	34	1	0
4005	0	0	0	0	0	0	0	1	0
4008	0	0	0	0	0	0	0	0	0
4010	0	253	10	5	0	0	268	1	0
4018	0	0	0	0	0	0	0	0	1
4022	0	51	51	16	0	0	118	1	0
4062	0	0	12	0	0	0	12	1	0
4066	0	0	64	1	1	0	66	1	0
4067	0	0	0	0	151	0	151	1	0
4068	0	11	24	0	0	0	35	1	0
4082	0	39	0	0	0	0	39	1	0
4088	0	0	0	0	0	0	0	0	0
4101	0	10	0	0	0	0	10	1	0
4112	0	0	0	0	0	0	0	0	0
4114	0	80	57	0	0	0	137	1	0
4129	0	0	0	0	0	0	0	1	0
4150	0	0	0	0	0	0	0	1	0
4163	0	20	4	0	0	0	24	1	0
4164	0	0	0	0	0	0	0	1	0
4165	0	0	0	0	0	0	0	1	0
4169	0	0	0	0	0	0	0	0	0
4204	0	0	90	0	0	0	90	1	0
4217	0	0	0	0	0	0	0	1	0
4224	0	0	47	0	0	0	47	1	0
4232	0	2	6	22	0	0	30	1	0

Cell Index	OB	Ipsi-Ctx	Contra-Ctx	Str	Thal	Tect	Total	Slc17a7	Gad2
4238	0	0	0	0	0	0	0	0	0
4241	0	0	105	0	0	0	105	1	0
4264	0	14	149	18	0	0	181	1	0
4269	0	0	5	0	0	0	5	1	0
5001	0	8	106	1	0	0	115	1	0
5035	0	4	114	0	0	0	118	1	0
5038	0	0	0	0	0	0	0	1	0
5076	0	0	80	0	0	0	80	1	0
5092	0	0	63	2	0	0	65	1	0
5096	0	0	0	0	0	0	0	1	0
5111	0	0	0	0	0	0	0	0	0
5112	0	0	0	0	0	0	0	0	0
5114	0	0	13	0	0	0	13	1	0
5144	0	0	3	0	0	0	3	1	0
5165	0	7	34	0	0	0	41	1	0
5166	0	0	0	0	0	0	0	1	0
5178	0	0	0	0	0	0	0	0	1
6003	0	0	0	0	0	0	0	1	0
6005	0	2	37	1	0	0	40	1	0
6030	0	0	22	19	0	0	41	1	0
6044	0	42	77	14	1	0	134	1	0
6051	0	0	0	0	0	0	0	1	0
6077	0	0	0	0	0	0	0	1	0
6143	0	0	68	0	0	0	68	1	0
6149	0	0	0	0	0	0	0	1	0
7006	0	0	0	0	0	0	0	0	0
7047	0	0	0	0	0	0	0	1	0
7049	0	0	0	0	1	0	1	1	0
7063	0	0	0	0	0	0	0	1	0
7070	0	0	4	0	0	0	4	1	0
7076	0	0	0	0	0	0	0	1	0
7083	0	0	0	0	0	0	0	1	0
7126	0	0	0	0	0	0	0	1	0
7136	0	0	1	0	0	0	1	1	0
7140	0	0	24	4	0	0	28	1	0
8025	0	36	19	4	0	0	59	1	0
9013	0	0	0	0	0	0	0	1	0
9024	0	0	0	0	0	0	0	1	0
9057	0	116	0	1	2	0	119	1	0
9058	0	14	21	0	0	0	35	1	0
9063	0	0	0	0	0	0	0	1	0
9067	0	12	9	15	0	0	36	1	0
9073	0	8	0	0	0	0	8	1	0
9078	0	106	0	0	0	0	106	1	0
9083	0	0	0	0	0	0	0	0	0
9085	0	0	0	0	0	0	0	1	0
11012	0	20	10	0	0	0	30	1	0
11025	0	0	0	0	0	0	0	1	0
11032	0	6	117	0	2	6	131	1	0

Table S2, related to Fig. 3

	BARseq		MAPseq*	BARseq + FISH**		BARseq + Cre***
	XC9	XC28	XC14	XC75	XC91	XC92
Brain ID	XC9	XC28	XC14	XC75	XC91	XC92
# targets collected	12	12	12	18	18	12
# slices sequenced	24	39	N/A	24	32	10
# of proj barcodes	4841	13581	8418	16042	8388	4772
# of cells in ACx	1575	1662	13998	781	737	2817
# of cells projecting	895	911	5082	557	422	1291
# of filtered cells	605	704	5082	557	422	72 (Fezf2+)

Table S3, related to Fig. 4